

IN THE SPECIFICATION

Please amend the specification as follows:

The paragraph beginning at page 1, line 7 is amended as follows:

This application is a divisional of U.S. Patent Application Serial No. 09/845,842, filed April 30, 2001, now issued as U.S. Patent No. 6,666,927 B2, which is incorporated herein by reference.

The paragraph beginning at page 2, line 3 is amended as follows:

The size of the lines forming the patterns in the resist material are typically about 20 to about [[100_m]] 100 μ m. Accordingly, the beam of light focused on the resist material must be very precise with little if any distortion. When the resist material is exposed to light, a chemical reaction occurs and particles from the resist material can be given off or “outgassed” with some of the particles accumulating on a lens element of the projection optics of an integrated circuit (IC) manufacturing device, such as a photolithographic camera device, microscanning device or the like. One example of such a device is a Micrascan® II/QML. The contamination of the lens element with the outgassed particles from the resist will cause lens distortion and scattering of light from the lens element. The line widths of the pattern or printed layer on the semiconductor wafer will vary as a result of the distortion creating defective products. To remove the contamination, the lens element must be cleaned which results in machine downtime and further risks to the device. If the cleaning is not done properly, both the front and back portions of the lens element could become contaminated or damaged and cleaning the lens element could make it more susceptible to future contamination. Additionally, the lenses in the projection optics of the manufacturing device could become misaligned requiring that the device be rebuilt by the manufacturer.

The paragraph beginning at page 2, line 21 is amended as follows:

One known system 100 for removing debris or outgassed particles from resist material is shown in Figure 1. Figure 1 shows a face plate 102 for a photolithographic IC manufacturing device (not shown in Figure 1). The face plate 102 has an exposure slit 104 formed therein through which a beam of light may be focused by projection optics of the photolithographic manufacturing device onto a semiconductor wafer (not shown). The focused beam of light exposes selected portions of a layer of resist material formed on the wafer. As previously described a chemical reaction occurs in the resist material and particles are outgassed that can contaminate a lens element of the projection optics. The debris removal system 100 includes a single stainless steel vacuum tube 106 that is bent around the exposure slit 104. The stainless steel tube 106 is one continuous tube and includes four [[90_]] 90° bends with 2 long sides 108 and two shorter sides 110. The ends 112 and 114 of the stainless steel tube 106 are coupled to a vacuum pump (not shown in Figure 1). A plurality of holes 115 are formed in the vacuum tube 106 around the perimeter of the exposure slit 104. The tube 106 may have from about 20 to about 56 holes 115 formed therein to draw away outgassed particles from the resist material.

The paragraph beginning at page 3, line 6 is amended as follows:

Figure 2 is a simulation of the air flow in the slit 104 for the tube 106 with eight holes in each long side 108 of the tube 106 and two holes in each short side 110. As shown in Figure 2, two air pockets 202 and 204 are formed by the vacuum through the tube 106 with a dead air space 206 between the air pockets 202 and 204. Outgassed particles can contaminate the lens element of the manufacturing device through the dead air space 206. Additionally, the abrupt changes in air flow direction within the tube 106 caused by the four [[90_]] 90° also adversely affects the suction ability and air flow dynamics within the slit 104 as shown in Figure 2.

The paragraph beginning at page 3, line 15 is amended as follows:

The system 100 with the four [[90_]] 90° bends also presents some manufacturing challenges. Sharp [[90_]] 90° bends are required to closely conform with the perimeter of the exposure slit 104. This requires multiple steps and a significant amount of stress can be placed on the tube 106 resulting in small openings or fissures. Additionally, air flow restrictions can occur in the area of the bends.